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## MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES MAY 2002

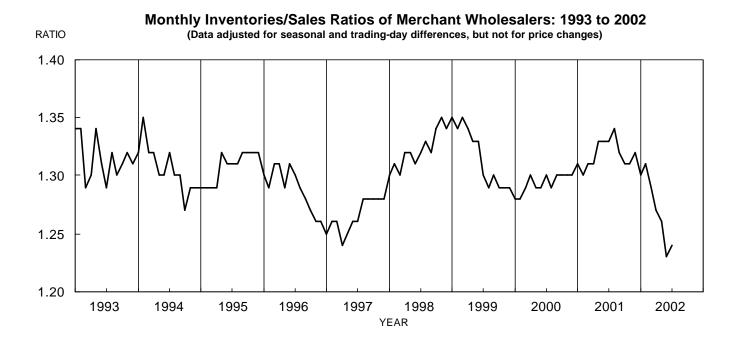
Sales. May 2002 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$227.8 billion, down 0.2 percent (+/-0.5%) from the revised April level, but were up 0.2 percent (+/-1.4%) from the May 2001 level. The April preliminary estimate was revised downward \$0.3 billion or 0.2 percent. Among durable goods, sales of lumber and other construction materials were down 2.4 percent from last month, while electrical goods increased 2.3 percent. Among nondurable goods, sales of petroleum and petroleum products decreased 4.4 percent from April and farm products raw materials fell 2.7 percent.

**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$281.4 billion at the end of May, up 0.1 percent (+/-0.3%) from last month, but were down 7.2 percent (+/-2.0%) from a year ago. The April preliminary estimate was revised downward

\$0.6 billion or 0.2 percent. Among durable goods, inventories of motor vehicle and motor vehicle parts and supplies increased 2.5 percent, while machinery, equipment and supplies decreased 1.6 percent. End-of-month inventories of nondurable goods increased 0.6 percent (+/-0.5%) from last month, but were down 0.9 percent (+/-3.6%) from a year ago. Compared to last month, inventories of paper and paper products were up 1.7 percent.

**Inventories/Sales Ratio.** The May inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.24. The May 2001 ratio was 1.33.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/01-A Current Business Reports.



## Monthly Wholesale Trade for June is scheduled to be released August 7, 2002 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, U.S. Census Bureau, Washington, DC 20233, or call Scott Scheleur, (301) 457-2747 or (301) 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - http://www.census.gov/whl.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 2002 and 2001

[In millions of dollars]																
		Sales					Inventories						Inventories/Sales			
_		Monthly			Percent change			Monthly			Percent change			Ratios		
NAICS <sup>1</sup>	Kind of	May	Apr.	May	May/	Apr./	37378	May	Apr.	May	May/	Apr./	37378	May	Apr.	May
code	Business	2002 (p)	2002 (r)	2001 (r)	Apr.	Mar.	37377	2002 (p)	2002 (r)	2001 (r)	Apr.	Mar.	37377	2002 (p)	2002 (r)	2001 (r)
Adjuste	eď²	(۴)	(1)	(.)				(15)	(1)	(-)				( )	(-)	(-/
42	U.S. Total	227,768	228,131	227,281	-0.2	1.5	0.2	281,433	281,193	303,204	0.1	-0.9	-7.2	1.24	1.23	1.33
421	Durable	113,561	113,367	115,478	0.2	1.7	-1.7	168,251	168,636	189,003	-0.2	-0.9	-11.0	1.48	1.49	1.64
4211	Automotive	17,254	17,440	17,210	-1.1	1.1	0.3	23,225	22,667	24,931	2.5	-1.6	-6.8	1.35	1.30	1.45
4212	Furniture	3,530	3,510	3,615	0.6	-0.5	-2.4	5,178	5,199	5,730	-0.4	0.3	-9.6	1.47	1.48	1.59
4213	Lumber	6,680	6,846	6,231	-2.4	0.2	7.2	6,777	6,767	6,532	0.1	0.8	3.8	1.01	0.99	1.05
4214	Prof. equip.	21,134	20,942	22,937	0.9	-0.9	-7.9	22,829	22,848	25,870	-0.1	-0.1	-11.8	1.08	1.09	1.13
42143	Comp. equip.	11,112	11,065	12,708	0.4	0.0	-12.6	8,286	8,167	10,233	1.5	-0.8	-19.0	0.75	0.74	0.81
4215	Metals	7,458	7,596	7,954	-1.8	7.6	-6.2	12,034	12,038	13,414	0.0	-0.2	-10.3	1.61	1.58	1.69
4216	Electrical	18,296	17,877	17,648	2.3	2.7	3.7	23,285	23,268	28,873	0.1	-0.5	-19.4	1.27	1.30	1.64
4217	Hardware	5,403	5,523	5,209	-2.2	0.6	3.7	10,173	10,029	10,340	1.4	-0.8	-1.6	1.88	1.82	1.99
4218	Machinery	20,525	20,201	21,660	1.6	2.6	-5.2	45,168	45,909	51,023	-1.6	-1.7	-11.5	2.20	2.27	2.36
4219	Misc. Durable	13,281	13,432	13,014	-1.1	2.8	2.1	19,582	19,911	22,290	-1.7	-0.6	-12.1	1.47	1.48	1.71
422	Nondurable	114,207	114,764	111,803	-0.5	1.2	2.2	113,182	112,557	114,201	0.6	-0.9	-0.9	0.99	0.98	1.02
4221	Paper	6,205	6,172	6,518	0.5	0.8	-4.8	6,123	6,021	6,949	1.7	-0.3	-11.9	0.99	0.98	1.07
4222	Drugs	18,589	18,569	15,539	0.1	1.1	19.6	27,759	27,667	24,865	0.3	-1.8	11.6	1.49	1.49	1.60
4223	Apparel	6,992	6,964	6,768		0.6		11,803	11,922	13,757	-1.0	-3.3	-14.2	1.69	1.71	2.03
4224	Groceries	34,608	34,511	33,429	0.3	-0.8		21,460	21,278	21,598	0.9	-0.3	-0.6	0.62	0.62	0.65
4225	Farm products	8,430	8,661	8,686	-2.7	3.4		9,965	9,981	10,732	-0.2	-1.9	-7.1	1.18	1.15	1.24
4226	Chemicals	5,110	5,048	4,894	1.2	5.9		6,089	6,057	6,155	0.5	-0.5	-1.1	1.19	1.20	1.26
4227	Petroleum	14,296	14,952	15,675	-4.4	8.0	-8.8	4,754	4,742	4,192	0.3	-0.4	13.4	0.33	0.32	0.27
4228	Alcohol	6,444	6,459	5,961	-0.2	-1.0	8.1	6,755	6,743	6,399	0.2	1.4	5.6	1.05	1.04	1.07
	Misc. Nondur.	13,533	13,428	14,333	0.8	-2.0	-5.6	18,474	18,146	19,554	1.8	0.5	-5.5	1.37	1.35	1.36
Not Ac	<u>ljusted</u>													Sale	es to c	late
														2002		2001
42	U.S. Total	237,668	231,215	238,178	2.8	1.7	-0.2	278,656	281,458	300,581	-1.0	-0.9	-7.3	1,117,	384 1	137,796
421	Durable	117,873	115,036	120,136	2.5	1.1		169,099	170,111	190,018	-0.6	0.3	-11.0	553,		574,172
4211	Automotive	18,048	18,417	18,088	-2.0	2.3	-0.2	23,295	23,075	25,031	1.0	-1.6	-6.9		225	84,344
4212	Furniture	3,576	3,559	3,673	0.5	0.6		5,137	5,048	5,684	1.8	0.2	-9.6		119	18,164
4213	Lumber	7,401	7,188	6,904	3.0	7.6	7.2	6,940	6,936	6,702	0.1	0.9	3.6		173	29,274
4214	Prof. equip.	21,641	20,377	23,235		-7.1	-6.9	22,624	23,122	25,637	-2.2	2.8	-11.8	103,		110,529
42143	Comp. equip.	11,068	10,346	12,505	7.0	-10.2	-11.5	8,228	8,290	10,120	-0.7	3.8	-18.7		755	60,948
4215	Metals	7,973	7,778	8,479	2.5	8.0		12,058	12,002	13,441	0.5	0.0	-10.3		778	40,035
4216	Electrical	18,150	17,412	17,666		-1.6		23,238	23,035	28,786	0.9	0.7	-19.3		674	90,935
4217	Hardware	5,781	5,689	5,615	1.6	6.0		10,224	10,109	10,433	1.1	-0.7	-2.0		025	25,968
4218	Machinery	21,982	21,453	23,306				45,981	46,873	51,992	-1.9	-0.5	-11.6	· · · · · · · · · · · · · · · · · · ·		109,267
4219	Misc. Durable	13,321	13,163						19,911	22,312					190	65,656
422	Nondurable	119,795	116,179				1.5	109,557	111,347	110,563	-1.6	-2.7	-0.9			563,624
4221	Paper	6,310	6,116	6,668	3.2	0.1		6,215	6,081	7,032	2.2	0.9	-11.6		415	32,630
4222	Drugs	18,738	18,680	15,741	0.3			26,232	27,335	23,547	-4.0	-3.1	11.4		019	76,240
4223	Apparel	6,607	6,762	6,511				11,685	11,433	13,619	2.2	-3.6	-14.2		404	33,987
4224	Groceries	36,684	34,546	35,502		-0.9		21,310	20,916	21,447	1.9	-0.8	-0.6			164,476
4225	Farm products	8,346	8,696	8,886		4.1	-6.1	8,480	9,702	9,090	-12.6	-12.0	-6.7		240	46,968
4226	Chemicals	5,493	5,159			6.8		6,168	6,087	6,229	1.3	-0.5	-1.0		129	25,275
4227	Petroleum	15,568	15,236	16,710		12.7	-6.8	4,649	4,671	4,096		-0.8	13.5		571	80,653
4228	Alcohol	7,082	6,401	6,599				6,769	6,831	6,418		4.2	5.5		072	28,146
4229	Misc. Nondur.	14,967	14,583	16,139	2.6	5.2	-7.3	18,049	18,291	19,085	-1.3	-3.3	-5.4	69,	796	75,249

p Preliminary estimate. r Revised.

<sup>1</sup> For a full description of the NAICS codes shown above, see the "1997 North American Industry Classification System" or the Current Business Reports "Annual Benchmark Report for Wholesale Trade" publication.

<sup>2</sup> Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

Table 2. Coefficients of Variation and Standard Errors for Sales and Inventories Estimates

	Kind of Business	Median		its of varia	ation for	Median	standard	l errors fo	r trend		ients of for level %)	Standard errors for trend	
NAICS code		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year-to-year estimates		Cumulative sales estimates		Current year cumulative	
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current year	Previous year	to previous year cumulative	
42	U.S. Total	1.2	1.7	1.3	1.7	0.3	0.2	0.9	1.2	1.1	1.2	0.4	
421	Durable	1.9	1.9	1.9	1.9	0.5	0.2	1.4	1.2	1.4	1.6	0.7	
4211	Automotive	3.5	4.6	3.8	4.6	0.9	0.6	2.6	4.7	2.9	3.8	1.1	
4212	Furniture	4.5	7.3	4.5	7.3	1.5	0.6	3.2	2.7	4.6	4.0	2.4	
4213	Lumber	4.4	6.1	4.1	6.2	1.0	0.6	2.5	3.8	4.7	3.7	2.2	
4214	Prof. equip.	5.1	5.4	5.0	5.3	1.1	0.6	4.2	2.4	4.8	3.7	2.0	
42143	Comp. equip.	8.0	6.7	7.9	6.6	1.6	1.2	5.4	3.0	8.3	6.7	2.8	
4215	Metals	7.6	8.9	7.9	8.8	1.1	0.6	5.1	3.9	6.5	6.8	2.4	
4216	Electrical	4.2	4.7	4.3	4.7	1.3	0.5	2.2	3.0	3.5	3.9	1.1	
4217	Hardware	8.1	10.6	8.2	10.5	1.1	0.5	4.2	3.7	8.2	7.3	1.9	
4218	Machinery	4.1	3.4	4.1	3.4	1.6	0.5	2.6	3.0	3.8	3.3	1.4	
4219	Misc. Durable	5.2	7.7	5.3	7.7	1.7	0.8	2.7	2.3	4.8	4.8	2.0	
422	Nondurable	1.7	2.7	1.6	2.7	0.5	0.3	1.1	2.2	1.6	1.5	0.7	
4221	Paper	4.8	3.7	4.8	3.7	0.9	0.6	1.7	1.5	4.3	4.8	0.6	
4222	Drugs	5.2	5.6	5.0	5.6	0.7	0.4	2.7	4.1	5.3	6.2	1.6	
4223	Apparel	5.1	4.9	5.0	4.8	1.7	0.9	3.4	5.4	4.3	3.8	2.2	
4224	Groceries	2.9	5.5	2.8	5.4	0.7	0.6	2.6	4.3	3.0	2.9	1.0	
4225	Farm products	5.6	11.1	5.6	11.3	1.6	1.8	4.1	4.8	5.6	5.4	1.4	
4226	Chemicals	5.2	7.1	5.2	7.1	1.1	0.8	3.0	4.1	5.1	5.0	1.6	
4227	Petroleum	5.7	7.4	5.7	7.3	0.8	0.8	1.7	3.3	5.6	5.5	0.8	
4228	Alcohol	3.7	4.6	3.7	4.5	0.9	0.9	2.1	6.4	3.9	4.2	1.0	
4229	Misc. Nondur.	7.7	7.8	7.7	7.9	1.9	1.1	4.1	5.1	7.8	7.3	4.1	

Note: Medians are based on data from the latest 12 months.

## **Reliability of Estimates**

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65 \times 0.9\%$  or  $\pm 1.5\%$ , and the 90% confidence interval is  $\pm 1.65 \times 0.9\%$  or  $\pm 1.5\%$ . If the interval contains 0, it is uncertain whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65 \times CV \times (the estimated value)$ .

Nonsampling errors can occur because of nonresponse,

insufficient coverage of the universe of wholesale businesses, mistakes in the recording and coding of data, and response errors. Imputed data accounts for approximately 28% of the sales estimates and 31% of the inventories estimates. Additionally, estimates of sales and inventories prior to March 2001 have been restated from SIC-based estimates. The restatement methodology may have introduced additional nonsampling error. The calculated median standard errors of year-to-year change estimates may also be influenced by the methodology used to impute historical data for units in the NAICS sample. The effect of this historic imputation methodology on published estimates will decrease as more data from the NAICS sample is accumulated. Precautionary steps are taken to minimize nonsampling errors, but their magnitude is not directly measured.

Further information regarding the reliability of estimates can be found on the Internet on our web page at http://www.census.gov/svsd/www/mwtsreliability.html.

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

NAICS	Kind of	Sales							Inventories						
code	Business	2002			2001				2001						
		Jun.	May r	Apr.r	Mar.	Feb.	May r	Jun.	May r	Apr.r	Mar.	Feb.	May r		
42	U.S. Total <sup>1</sup>	0.988	1.043	1.015	1.010	0.915	1.048	0.991	0.993	1.002	1.003	1.005	0.993		
421	Durable	1.000	1.037	1.015	1.020	0.910	1.042	1.004	1.006	1.008	0.998	0.999	1.006		
4211	Automotive	0.997	1.046	1.056	1.043	0.902	1.051	0.983	1.003	1.018	1.018	1.034	1.004		
4212	Furniture	0.964	1.013	1.014	1.003	0.898	1.016	1.009	0.992	0.971	0.972	0.979	0.992		
4213	Lumber	1.048	1.108	1.050	0.978	0.858	1.108	1.019	1.024	1.025	1.024	0.995	1.026		
4214	Prof. equip.	1.001	1.024	0.973	1.038	0.897	1.013	0.988	0.991	1.012	0.983	0.996	0.991		
42143	Comp. equip.	1.016	0.996	0.935	1.041	0.885	0.984	0.973	0.993	1.015	0.970	0.997	0.989		
4215	Metals	0.999	1.069	1.024	1.020	0.943	1.066	1.007	1.002	0.997	0.995	0.999	1.002		
4216	Electrical	0.984	0.992	0.974	1.017	0.916	1.001	1.007	0.998	0.990	0.979	0.991	0.997		
4217	Hardware	1.025	1.070	1.030	0.978	0.917	1.078	1.015	1.005	1.008	1.007	0.994	1.009		
4218	Machinery	0.999	1.071	1.062	1.025	0.912	1.076	1.018	1.018	1.021	1.008	0.988	1.019		
4219	Misc. Durable	0.987	1.003	0.980	1.006	0.924	1.012	0.999	1.001	1.000	0.979	0.995	1.001		
422	Nondurable	0.974	1.048	1.016	1.006	0.924	1.055	0.970	0.970	0.989	1.010	1.013	0.969		
4221	Paper	0.974	1.017	0.991	0.998	0.919	1.023	0.997	1.015	1.010	0.998	0.990	1.012		
4222	Drugs	0.942	1.008	1.006	0.997	0.931	1.013	0.983	0.945	0.988	1.001	0.982	0.947		
4223	Apparel	0.963	0.945	0.971	1.097	1.024	0.962	1.022	0.990	0.959	0.962	0.997	0.990		
4224	Groceries	0.985	1.060	1.001	1.002	0.902	1.062	0.991	0.993	0.983	0.988	0.977	0.993		
4225	Farm products	0.891	0.990	1.004	0.997	0.975	1.023	0.779	0.851	0.972	1.083	1.153	0.847		
4226	Chemicals	1.012	1.075	1.022	1.013	0.948	1.080	1.008	1.013	1.005	1.005	0.999	1.012		
4227	Petroleum	0.971	1.089	1.019	0.977	0.921	1.066	0.981	0.978	0.985	0.989	0.991	0.977		
4228	Alcohol	1.027	1.099	0.991	0.951	0.823	1.107	1.016	1.002	1.013	0.985	0.966	1.003		
4229	Misc. Nondur.	1.040	1.106	1.086	1.012	0.916	1.126	0.951	0.977	1.008	1.048	1.060	0.976		



r Revised

1 Adjusted sales and inventories data shown in Table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.